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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,832	10/30/2003	Ryouichi Ootsu	501.43231X00	7188

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ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-3873

EXAMINER
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NGUYEN, JENNIFER T

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/695,832

Applicant(s)

OOTSU ET AL.

Examiner

Jennifer T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2 and 4-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 and 4-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office action is responsive to amendment filed 11/09/06.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 4-9, 13-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwashiorkor (Patent No.: US 5,945,984) in view of Ogawa (Patent No. US 6,680,759).

Regarding claim 5, Kwashiorkor teaches an image display device (fig. 1) is characterized in that a drive circuit (801, 701) which supplies signals to respective pixels in an image display part of a substrate through signal lines is formed outside the image display part (2) (col. 5, lines 18-36),

the drive circuit is constituted of a plurality of semiconductor devices (601-1 to 601-8, fig. 3), and the respective semiconductor devices are configured such that data are supplied between these respective semiconductor devices (601-1) and other semiconductor devices (601-2) which are arranged adjacent to these respective semiconductor devices through data transfer signal lines (783), and

a dummy terminal (651-1) is formed between the signal lines (i.e., data input terminal 641) and the data transfer signal lines (783) (col. 6, line 36 to col. 7, line 10).

Kwashiorkor differs from claim 5 in that he does not specifically teach the dummy terminal is a line and wherein the dummy line is formed so as to extend along the signal line.

Ogawa teaches a dummy terminal (33a3, fig. 2) includes a dummy line (5a) wherein the dummy line (5a) is formed so as to extend along the signal line (52a1) (col. 9, lines 9-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the dummy line as taught by Ogawa in the system of Kwashiorkor in order to increase effecting between the dummy lines and signal lines.

Regarding claim 2, Ogawa teaches both ends of the dummy line are not connected to other signal lines (fig. 2).

Regarding claim 4, Ogawa teaches the dummy line is constituted of a plurality of lines which are arranged in parallel (fig. 8).

Regarding claims 6 and 17, Kwashiorkor teaches the signal lines are drain signal lines which supply video signals to respective pixels, and the drive circuit constitutes a video signal drive circuit (fig. 3).

Regarding claim 7, Kwashiorkor teaches the signal lines are gate signal lines which supply scanning signals to respective pixels, and the drive circuit constitutes a scanning signal drive circuit (col. 2, lines 46-59).

Regarding claim 8, Kwashiorkor teaches the signal lines which are arranged adjacent to each other are formed into groups (601-1 to 601-8), the signal lines which are formed into each group are directed in the converging direction outside the image display part and are connected to the respective semiconductor devices (fig. 1), and data transfer signal lines (783, fig. 3) which connect between one semiconductor device (601-1) and another semiconductor device (601-2) arranged adjacent to the one semiconductor device are formed such that the data transfer signal

lines (783) loop around area at the image display part side between these respective semiconductor devices (fig. 3).

Regarding claim 9, Kwashiorkor teaches the dummy lines (651-1) are connected with the signal lines (641) which are arranged adjacent to the dummy lines (fig. 3).

Regarding claim 13, the combination of Kwashiorkor and Ogawa teaches the dummy line is arranged between the signal lines and the data transfer line so as to enable prevention of a disconnection due to static electricity caused by a spark generated between one of the signal lines and one of the data transfer lines (abstract of Ogawa).

Regarding claim 14, the combination of Kwashiorkor and Ogawa teaches the signal lines have a bent portion along the extension thereof, and the dummy line extends along the signal lines and has a corresponding bent portion (fig. 2 of Ogawa).

Regarding claim 15, the combination of Kwashiorkor and Ogawa teaches the dummy line and the signal line are connected at coupling portion (8, fig. 11 of Ogawa). Ogawa teaches the coupling portion may be formed at any position (col. 12, line 1-7). Although Ogawa does not specifically teach the connection at two places, however, it would have been obvious to obtain the connection at two places in order to establish strong connection between the dummy line and the signal line.

4. Claims 11, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon et al. (Patent No. US 6,864,937) in view of Ogawa (Patent No. US 6,680,759).

Regarding claim 11, Moon teaches an image display device is characterized in that a pair of electrodes are formed on each pixel within an image display part of a substrate, one of the pair of electrodes includes a counter electrode (122, fig. 6) to which a counter voltage supply signal

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which becomes a reference with respect to signals supplied to another electrode of the pair of electrodes is supplied (col. 5, lines 18-35),

a drive circuit which supplies signals to the respective pixels through signal lines is formed outside the pixel display part, the drive circuit is constituted of a plurality of semiconductor devices (124), a counter voltage (122) supply signal line which supplies counter voltage supply signals to the counter electrode is formed on a region between one semiconductor device and another semiconductor device which is arranged adjacent to the one semiconductor device, and

a dummy line (136) is arranged between the signal lines (134) and the counter voltage supply signal line (128B) (col. 5, lines 37-67).

Moon differs from claim 11 in that he does not specifically teach the dummy line is formed so as to extend along the signal line.

Ogawa teaches a dummy line (5a) wherein a dummy line (5a, fig. 2) is formed so as to extend along the signal line (52a1) (col. 9, lines 9-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the dummy line as taught by Ogawa in the system of Kwashiorkor in order to increase effecting between the dummy lines and signal lines.

Regarding claim 18, the combination of Moon and Ogawa teaches the dummy line is arranged between the signal lines and the data transfer line so as to enable prevention of a disconnection due to static electricity caused by a spark generated between one of the signal lines and one of the data transfer lines (abstract of Ogawa).

Regarding claim 19, the combination of Moon and Ogawa teaches the signal lines have a bent portion along the extension thereof, and the dummy line extends along the signal lines and has a corresponding bent portion (fig. 2 of Ogawa).

5. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwashiorkor (Patent No. US 5,945,984) in view of Ogawa (Patent No. US 6,680,759) and further in view of Hayakawa et al. (Patent No.: US 6,172,732).

Regarding claims 10 and 12, the combination of Kwashiorkor and Ogawa differs from claim 10 in that he does not specifically teach the connection between the dummy lines and the signal lines are formed into a seal material which seals a pair of substrate.

Hayakawa teaches a connection between the dummy lines (43, fig. 6) and the signal lines (411) are formed into a seal material which seals a pair of substrate (col. 3, lines 55-57, col. 6, lines 19-22, col. 10, lines 39-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the connection between the dummy lines and the signal lines are formed into a seal material which seals a pair of substrate as taught by Hayakawa in the system of the combination of Kwashiorkor and Ogawa in order to obtain a display panel having uniform electrical characteristics.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable Moon et al. (Patent No. US 6,864,937) in view of Ogawa (Patent No. US 6,680,759) and further in view of Hayakawa et al. (Patent No.: US 6,172,732).

Regarding claim 16, the combination of Moon and Ogawa differs from claim 10 in that he does not specifically teach the connection between the dummy lines and the signal lines are formed into a seal material which seals a pair of substrate.

Hayakawa teaches a connection between the dummy lines (43, fig. 6) and the signal lines (411) are formed into a seal material which seals a pair of substrate (col. 3, lines 55-57, col. 6, lines 19-22, col. 10, lines 39-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the connection between the dummy lines and the signal lines are formed into a seal material which seals a pair of substrate as taught by Hayakawa in the system of the combination of Moon and Ogawa in order to obtain a display panel having uniform electrical characteristics.

7. Applicant's arguments with respect to claims 2 and 4-11 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.




***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer T. Nguyen whose telephone number is 571-272-7696. The examiner can normally be reached on Mon-Fri: 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Nguyen  
1/20/07

  
RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600